

Notice of Allowability

Application No.

09/916,115

Examiner

Jonathan S. Crepeau

Applicant(s)

WELLS, BRIAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE of 11/16/04.
2. ☒ The allowed claim(s) is/are 2-33.
3. ☒ The drawings filed on 25 July 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

IN THE SPECIFICATION:

Replace the paragraph starting at page 22, line 16 with the following:

--Commonly assigned U.S. patent applications Ser. No. 09/916,241, entitled FUEL CELL AMBIENT ENVIRONMENT MONITORING AND CONTROL APPARATUS AND METHOD (Atty. Docket No. 130109.404), now U.S. Patent 6,815,101; Ser. No. 09/916,117, entitled FUEL CELL CONTROLLER SELF INSPECTION (Atty. Docket No. 130109.405); Ser. No. 09/916,211, entitled FUEL CELL PURGING METHOD AND APPARATUS (Atty. Docket No. 130109.407); Ser. No. 09/916,213, entitled FUEL CELL RESUSCITATION METHOD AND APPARATUS (Atty. Docket No. 130109.408); Ser. No. 09/916,240, entitled FUEL CELL SYSTEM METHOD, APPARATUS AND SCHEDULING (Atty. Docket No. 130109.409); Ser. No. 09/916,239, entitled FUEL CELL SYSTEM AUTOMATIC POWER SWITCHING METHOD AND APPARATUS (Atty. Docket No. 130109.421); Ser. No. 09/916,118, entitled PRODUCT WATER PUMP FOR FUEL CELL SYSTEM (Atty. Docket No. 130109.427), now

abandoned; and Ser. No. 09/916,212, entitled FUEL CELL SYSTEM HAVING A HYDROGEN SENSOR (Atty. Docket No. 130109.429), all filed Jul. 25, 2001, are incorporated herein by reference, in their entirety.--

Allowable Subject Matter

2. Claims 2-33 are allowed.
3. The following is an examiner's statement of reasons for allowance:

The reasons for allowance of claims 2, 7, 12, 16, 25, 30, and 32 were previously given and remain applicable.

Claim 6 recites that a transistor responds to a voltage across only a pair of fuel cells. Summers teaches fuel cell stacks, but does not expressly teach that such stacks may contain only two fuel cells. As set forth in Applicant's remarks and in the instant specification on page 17, the use of only two fuel cells produces new and advantageous results and thus is considered to have a patentable significance (i.e., it is not a mere reduction in size or number of parts). As such, claim 6 is allowable.

Claim 24 recites the use of a "predetermined threshold voltage" when monitoring a pair of fuel cells. The threshold voltages used in the method of Summers are not considered to be "predetermined," i.e., they are not set before the method is started. Additionally, Jansen et al (U.S. Patent 6,677,066) teaches the monitoring of fuel cell voltages using transistors (see col. 5, line 18). However, the transistors are coupled across *individual* fuel cells for the purpose of detecting faulty cells and shunting current around them. There would not be sufficient

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motivation to couple the transistors across more than one fuel cell, and furthermore, as stated above, Applicant has demonstrated that the use of two fuel cells is significant. As such, claim 24 is allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached at (571) 272-1414. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau
Primary Examiner
Art Unit 1746
January 21, 2005